UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*amendment filed on 3/4/08*</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>*82-100*</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>*82-100*</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>*03 December 2007*</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>*12/3/07*</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office

action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since

this application is eligible for continued examination under 37 CFR 1.114, and the fee

set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has

been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 12/3/07 has

been entered.

Response to Preliminary Amendment

2.   Applicant's amendment was received on 3/4/08, and has been entered and made

of record. Currently, **claims 82-100** are pending.

Claim Objections

3.   Claims are objected to because of the following informalities:

Claim 85, line 2, "presenting job attributes or status" should be -- presenting <u>the</u>

job attributes or status <u>information</u> --;

Claim 86, lines 1-2, "the a repository and interface are provided by a job monitor"

should be -- the a̶-repository and <u>the</u> interface are provided by a̶ <u>the</u> job monitor --;

Claim 95, lines 1-2, "the a repository and interface are provided by a job monitor"

should be -- the a̶-repository and <u>the</u> interface are provided by a̶ <u>the</u> job monitor --;

Claim 96, lines 1-2, "the a repository and interface are provided by a job monitor"

should be -- the a̶-repository and <u>the</u> interface are provided by a̶ <u>the</u> job monitor --;

Claim 97, line 1, "a job monitor" should be -- a̶ <u>the</u> job monitor --;

Claim 98, line 1, "a job monitor" should be -- a̶ <u>the</u> job monitor --;

Claim 99, line 1, "a job monitor" should be -- a̶ <u>the</u> job monitor --;

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

4.   Claims 84-86, 88-90, 92, 98 and 99 are rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention.

Claim 84 recites the limitation "components to process a job" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear if the components are referring to the printer components or the plurality of components. If they are the printer components, don't they already have the ability to process the job? Also, it is uncertain if this job is referring to the printer job recited in claim 83.

Claim 85 recites the limitation "the components" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear if the components are referring to the printer components or the plurality of components recited in claim 83.

Claim 86 recites the limitation "a component" in line 3. There is insufficient antecedent basis for this limitation in the claim. It is unclear if this component is referring to the printer component recited in claim 83.

Claim 88 recites the limitation "the component determining valid states for a call" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear if this call is referring to the call by the printer component recited in claim 83. Furthermore, it is confusing if the component determining part is a result of the determination of a next job to process by the job monitor. What is the connection between the two limitations?

Claim 89 recites the limitations "a multiplexor" and "a multiplexer" in line 2. It is unclear if they are referring to a same component.

Claim 90 recites the limitations "the print engine" and "the spooler" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 92 recites the limitations "the spool device" and "the multiplexer". There is

insufficient antecedent basis for this limitation in the claim.

Claim 98 recites the limitation "identification for a job" in line 3. There is

insufficient antecedent basis for this limitation in the claim. It is uncertain if this job is

referring to the printer job recited in claim 83.

Claim 99 recites the limitation "the variables associated with a job for the

components" in lines 2-3. There is insufficient antecedent basis for this limitation in the

claim. It is unclear if the components are referring to the printer components or the

plurality of components recited in claim 83. Also, it is uncertain if this job is referring to

the printer job recited in claim 83.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 82-100 are rejected under 35 U.S.C. 102(e) as being anticipated by

Richter et al. U.S. Patent No. 6,678,068 (hereinafter Richter).

With respect to claim 83, Richter discloses an apparatus (print server 32 in fig. 6)

for providing printer recognition and management of a print job entity (fig. 1),

comprising:

a repository of attributes and status information associated with each print job

that passes through a printer system (col. 5, lines 15-30; col. 7, lines 25-32; col. 8, lines

20-64; & figs. 25~30);

an interface to a plurality of components (figs. 1 & 6), the interface providing

access to the attributes and status information in the repository by the plurality of

components (clients computers 12); and

a job monitor for managing the repository of attributes and status information

associated with each print job (col. 5, lines 15-30; col. 7, lines 25-32; & col. 8, lines 20-

64), for responding to a call by a printer component and for managing interactions

between printer components in order to control the processing of the job (figs. 25~30).

With respect to claim 84, Richter discloses the apparatus of claim 22, wherein

the interface provides an ability for components to process a job according to

requirements of the components and reports job attributes and processing status of the

job for common access by other components (col. 8, lines 5-19).

With respect to claim 85, Richter discloses the apparatus of claim 22, wherein

the interface provides a component access to common variables, the components

presenting the job attributes or the status information to the interface (col. 8, lines 5-19).

With respect to claim 86, Richter discloses the apparatus of claim 22, wherein

the repository and the interface are provided by the job monitor further providing logical

views to obtain a next job to be processed by a component and to obtain a list of all jobs

in the order that they are processed (figs. 25-30).

With respect to claim 87, Richter discloses the apparatus of claim 22, wherein

the job monitor is used to update attributes of print jobs (col. 14, lines 27-38).

With respect to claim 88, Richter discloses the apparatus of claim 26, wherein

the job monitor determines a next job to process, the component determining valid

states for a call (col. 14, lines 27-38).

With respect to claim 89, Richter discloses the apparatus of claim 27, wherein

the job monitor includes a multiplexor, and wherein the valid states for a multiplexer

further comprise:

an unknown state for when a job identification is requested (col. 11, lines 11-22);

and

a pull print queue state for the job when the job is stop-flowed at a port

connection manager waiting for access to the printer because a print engine is

processing another job (col. 11, lines 46-58);

wherein the mulitplexer receives the job and selects to place the job in a job must

be spooled state, a may spool state or must print state (col. 11, lines 46-58).

Since the print server of Richter allows the interleaving of two or more signals to

a single terminal, the print server is construed to be a multiplexor.

With respect to claim 90, Richter discloses the apparatus of claim 29, wherein

the multiplexer routes the incoming job to the print engine or the spooler according to

which becomes available first when the job is a job that may spool (col. 11, lines 46-57).

With respect to claim 91, Richter discloses the apparatus of claim 22, further comprising a spooler (fig. 6).

With respect to claim 92, Richter discloses the apparatus of claim 30, wherein the spooler receiving a job identification request, enters a not spooled state when the spooler has not yet processed the job, enters a spooling, can despool state when the job is being written to the spool device thereby allowing the job to be selected for despoiling at any time, enters a spooling, despoiling state when the job is being written to the spool device and is also being read from the spool device, enters a waiting to despool state when the end of the job has been received, enters a despoiling state when the job is being read from the spool device and written to the mulitplexer and enters the done state when the job is finished being processed by the spooler (col. 11, lines 46-57 & fig. 28).

With respect to claim 93, Richter discloses the apparatus of claim 22, further comprising an interpreter (fig. 6 & col. 7, line 58 ~ col. 8, line 4).

With respect to claim 94, Richter discloses the apparatus of claim 32, wherein the interpreter enters a waiting for data state when job processing by the interpreter has started, enters an interpreting state when the job is being processed by the interpreter and enters a done state when the job is finished being processed by the interpreter (col. 11, lines 33-58).

With respect to claim 95, Richter discloses the apparatus of claim 22, wherein the repository and interface are provided by the job monitor, the job monitor further handling incoming jobs with a port connection manager, wherein the port connection

manager calls to a multiplexer to process the job (col. 11, lines 33-58). Since the print

server of Richter allows the interleaving of two or more signals to a single terminal, the

print server is construed to be a multiplexor.

With respect to claim 96, Richter discloses the apparatus of claim 22, wherein

the repository and interface are provided by the job monitor, the job monitor further

deciding whether to assign a job to the printer, whether to assign a job to a spooler,

whether the job must wait for available resources or whether the job cannot be

processed (col. 11, lines 46-58 & fig. 16).

With respect to claim 97, Richter discloses the apparatus of claim 22, further

comprising the job monitor to fetch jobs in an order that is dependent upon the calling

component (col. 11, lines 33-58).

With respect to claim 98, Richter discloses the apparatus of claim 36, further

comprising the job monitor for examining process job states and variables to determine

the correct response and to return an appropriate job identification for a job (col. 11,

lines 33-58 & fig. 28).

With respect to claim 99, Richter discloses the apparatus of claim 22, further

comprising the job monitor for providing a common method of accessing the variables

associated with a job for the components (figs. 28).

With respect to claims 82 and 100, arguments analogous to those presented for

claim 83, are applicable.

Contact Information

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to CHAN S. PARK whose telephone number is (571)272-

7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHAN S PARK/
Examiner, Art Unit 2625

March 25, 2008